June 12, 2001

Mr. James R. Carson Ispat Inland Inc. 3210 Watling Street East Chicago, Indiana 46312

Re: Minor Source Modification: 089-12796-00316

Dear Mr. Carson:

Ispat Inland, Inc., applied for a Part 70 operating permit on September 16, 1996, for a steel mill. An application to modify the source was received on October 5, 2000. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction and operation of the following equipment for a Direct Reduced Iron( DRI) storage and conveying system:

- a) An enclosed truck/trailer unloading Area (213) with a potential throughput of 400,000 tons per year of DRI
- (b) A DRI conveyor system consisting of:
  - (1) A 20,000 cu. ft. capacity enclosed DRI storage silo with excess air vented through the roof and then through one of the bin vents
  - (2) A horizontal trough belt stocking conveyor
  - (3) Multiple Delivery Conveyors
- (c) Emission control system for (a) and (b) to remove particulate matter consisting of:
  - (1) Bin Vent Filter No. 1 (210)
  - (2) Bin Vent Filter No. 2 (211)
  - (3) Bin Vent Filter No. 3 (212)

DRI is transferred from one of the delivery conveyors into the enclosed storage silo. All conveyors are enclosed and dust is dumped back onto conveyor. Ispat Inland Inc. (Ispat) is proposing to simplify and better control its use of Cold Direct Reduced Iron (DRI) by installing and operating a new DRI storage and conveying system to receive, stock, store, transfer and deliver cold DRI at Ispat's No. 1 Electric Arc Furnace Shop.

The Minor Source Modification approval will be incorporated into the pending Part 70 permit application pursuant to 326 IAC 2-7-10.5(I)(3). The source may begin operation upon issuance of the source modification approval.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call (800) 451-6027, press 0 and ask for Teresa Freeman or extension (4-1243), or dial (317) 234-1243.

Sincerely,

Original Signed by Paul Dubenetzky Paul Dubenetzky, Chief Permits Branch Office of Air Management

# Attachments

tlf

cc: File - Lake County

U.S. EPA, Region V

Lake County Health Department Northwest Regional Office

Air Compliance Section Inspector - Dave Sampias

Compliance Data Section - Karen Nowak

Administrative and Development - Janet Mobley Technical Support and Modeling - Michele Boner

# PART 70 MINOR SOURCE MODIFICATION OFFICE OF AIR QUALITY

# Ispat Inland, Inc. 3210 Watling Street East Chicago, Indiana 46312

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Source Modification No.: 089-12796-00316	
Original Signed by Paul Dubenetzky Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: June 21, 2001

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# **Compliance Determination Requirements**

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# **SECTION A**

# **SOURCE SUMMARY**

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the emission units contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

# A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates an integrated steel mill.

Responsible Official: John D. Fekete

Source Address: 3210 Watling Street, East Chicago, Indiana 46312

Mailing Address: 3210 Watling Street MC 8-130, East Chicago, Indiana 46312

Phone Number: (219) 399-4516 (Jim Carson)

SIC Code: 3312 County Location: Lake

County Status: Nonattainment for PM<sub>10</sub>, SO<sub>2</sub>, and ozone

Attainment for all other criteria pollutants

Source Status: Part 70 Permit Program;

Major Source, under PSD and Emission Offset Rules; Major Source, Section 112 of the Clean Air Act;

1 of 28 listed source categories under PSD and Emission Offset Rules.

# A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source is approved to construct and operate the following emission units and pollution control devices for a Direct Reduced Iron(DRI) storage and conveying system:

- (a) An enclosed truck/trailer unloading Area (213) with a potential throughput of 400,000 tons per year of DRI
- (b) A DRI conveyor system consisting of:
  - (1) A 20,000 cu. ft. capacity enclosed DRI storage silo with excess air vented through the roof and then through one of the bin vents
  - (2) A horizontal trough belt stocking conveyor
  - (3) Multiple Delivery Conveyors
- (c) Emission control system for (a) and (b) to remove particulate matter consisting of:
  - (1) Bin Vent Filter No. 1 (210)
  - (2) Bin Vent Filter No. 2 (211)
  - (3) Bin Vent Filter No. 3 (212)

# A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source does not currently have any insignificant activities, as defined in 326 IAC 2-7-1(21).

# A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 Applicability).

# SECTION B GENERAL CONSTRUCTION CONDITIONS

# B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

# B.2 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

# B.3 Revocation of Permits [326 IAC 2-1.1-9(5)][326 IAC 2-7-10.5(i)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

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Ispat Inland, Inc. East Chicago, Indiana Permit Reviewer: Teresa Freeman

# SECTION C

# **GENERAL OPERATION CONDITIONS**

C.1 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).
- C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]
  - (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) when operation begins, including the following information on each facility:
    - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
    - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
    - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management Compliance Branch, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as

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they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

# C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management Permits Branch, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

# C.4 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

# C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

# C.6 Fugitive Dust Emissions [326 IAC 6-1-11.1]

Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from source wide activities shall meet the following requirements:

- (a) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%).
- (b) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%).
- (c) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%).

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(d) The opacity of fugitive particulate emissions from continuous transfer of material onto and out of storage piles shall not exceed ten percent (10%) on a three (3) minute average.

- (e) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average.
- (f) There shall be a zero (0) percent frequency of visible emission observations of a material during the inplant transportation of material by truck or rail at any time.
- (g) The opacity of fugitive particulate emissions from the inplant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%).
- (h) There shall be a zero (0) percent frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building.
- (i) The PM<sub>10</sub> emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.
- (j) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).
- (k) Any facility or operation not specified in 326 IAC 6-1-11.1(d) shall meet a twenty percent (20%), three (3) minute average opacity standard.

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan. The Fugitive Dust Control Plan shall be updated to include all new equipment and control strategies within the date of initial start-up.

# C.7 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

# Compliance Requirements [326 IAC 2-1.1-11]

# C.8 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

# Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

# C.9 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

If required by Section D, all monitoring and record keeping requirements shall be implemented when operation begins. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

# Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

# C.10 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole of information contained in other documents, or consist of a combination

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of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:

- (1) This condition;
- (2) The Compliance Determination Requirements in Section D of this permit;
- (3) The Compliance Monitoring Requirements in Section D of this permit;
- (4) The Record Keeping and Reporting Requirements in Section C (General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
- (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ upon request and shall be subject to review and approval by IDEM, OAQ. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
  - (A) Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
  - (B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to take reasonable response steps may constitute a violation of the permit.
- (c) Upon investigation of a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:
  - (1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
  - (3) An automatic measurement was taken when the process was not operating.
  - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

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- (e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.
- (f) At its discretion, IDEM may excuse the Permittee's failure to perform the monitoring and record keeping as required by Section D, if the Permittee provides adequate justification and documents that such failures do not exceed five percent (5%) of the operating time in any quarter. Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.

# C.11 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-7-16.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
  - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered:

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,

Compliance Section), or

Telephone Number: 317-233-5674 (ask for Compliance Section)

Facsimile Number: 317-233-5967

Northwest Regional Office: 219-881-6712 (Fax: 219-881-6745)

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management Compliance Branch, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

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The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value.

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

C.12 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the

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Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

# Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

# C.13 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

# C.14 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

(a) The reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

# **SECTION D.1**

# **FACILITY OPERATION CONDITIONS**

Facility Description [326 IAC 2-7-5(15)]

- (a) An enclosed truck/trailer unloading Area (213) with a potential throughput of 400,000 tons per year of DRI
- (b) A DRI conveyor system consisting of:
  - (1) A 20,000 cu. ft. capacity enclosed DRI storage silo with excess air vented through the roof and then through one of the bin vents
  - (2) A horizontal trough belt stocking conveyor
  - (3) Multiple Delivery Conveyors
- (c) Emission control system for (a) and (b) to remove particulate matter consisting of:
  - (1) Bin Vent Filter No. 1 (210)
  - (2) Bin Vent Filter No. 2 (211)
  - (3) Bin Vent Filter No. 3 (212)

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

# Emission Limitations and Standards [326 IAC 2-7-5(1)]

# D.1.1 Nonattainment Area Particulate Limitations [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations), the particulate matter emissions from the Bin Vent Filter shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf) as determined by Method 5.

# D.1.2 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

- (a) The particulate matter (PM) emission rate shall be less than 25 tons per year. Therefore, the requirements of 326 IAC 2-2 and 40 CFR 52.21 will not apply.
- (b) The particulate matter less than 10 microns ( $PM_{10}$ ) emission rate shall be less than 15 tons per year. Therefore, the requirements of 326 IAC 2-2 and 40 CFR 52.21 will not apply.

# D.1.3 Lake County Fugitive Particulate Matter Control Requirements [326 IAC 6-1-11.1]

Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from DRI handling and storage operations and DRI Conveyor Drop Points activities shall meet the following requirements:

- (a) Storage Piles
  The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average.
- (b) Inplant Transportation by Truck/Rail

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There shall be a zero (0) percent frequency of visible emission observations of a material during the inplant transportation of material by truck or rail at any time.

- (c) Material Processing Equipment
  There shall be a zero (0) percent frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building.
- (d) Building Vents
  The PM<sub>10</sub> emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.

# D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)

A Preventive Maintenance Plan, in accordance with Section B-Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

# **Compliance Determination Requirements**

# D.1.5 Particulate Matter (PM)

Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), compliance with the opacity limits specified in Condition D.2.2 shall be achieved by controlling fugitive particulate matter emissions according to the revised Fugitive Dust Control Plan (FDCP). If it is determined that the control procedures specified in the FDCP do not demonstrate compliance with the fugitive emission limitations, IDEM, OAQ may request that the FDCP be revised and submitted for approval.

Opacity from the DRI handling and storage operations and DRI Conveyor Drop Points activities shall be determined as follows:

- (a) Wind Erosion from Storage Piles
  - The opacity shall be determined using 40 CFR 60, Appendix A, Method 9, except that the opacity shall be observed at approximately four (4) feet from the surface at the point of maximum opacity. The observer shall stand approximately fifteen (15) feet from the plum and at approximately right angles to the plume. The limitations may not apply during periods when application of fugitive particulate control measures are either ineffective or unreasonable due to sustained very high wind speeds. During such periods, the company must continue to implement all reasonable fugitive particulate control measures and maintain records documenting the application of measures and the basis for a claim that meeting the opacity limitation was not reasonable given prevailing wind conditions.
- (b) Material Transported by Truck or Rail
  Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method
  22, except that the observation shall be taken at approximately right angles to the
  prevailing wind from the leeward side of the truck or railroad car. Material transported by
  truck or rail that is enclosed and covered shall be considered in compliance with the
  inplant transportation requirement.
- (c) Material Processing Limitations
  Compliance with all opacity limitations from material processing equipment shall be
  determined using 40 CFR 60, Appendix A, Method 9. Compliance with all visible
  emissions limitations from material processing equipment shall be determined using 40
  CFR 60, Appendix A, Method 22. Compliance with all particulate matter limitations from

material processing equipments shall be determined using 40 CFR 60, Appendix A, Method 5 or 17.

# **Compliance Determination Requirements**

# D.1.6 Visible Emissions Notations

- (a) Visible emission notations of the DRI Storage and handling operations stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C Compliance Monitoring Plan Failure to Take Response Steps, shall be considered a violation of this permit.

# Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

# D.1.7 Record Keeping Requirements

- (a) To document compliance with Condition D.1.6, the Permittee shall maintain records of daily visible emission notations of the DRI handling and storage operation stack exhaust.
- (b) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

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# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT **OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION**

# **PART 70 SOURCE MODIFICATION CERTIFICATION**

Source Name: Ispat Inland, Inc.

Source Address: 3210 Watling St., East Chicago, Indiana 46312 Mailing Address: 3210 Watling St., East Chicago, Indiana 46312 Source Modification No.: 089-12796-00316

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.			
Please check what document is being certified:			
9 Test Result (specify)			
9 Report (specify)			
9 Notification (specify)			
9 Affidavit (specify)			
9 Other (specify)			
I certify that, based on information and belief formed after reasonable inquiry, the statements ar information in the document are true, accurate, and complete.	ıd		
Signature:			
Printed Name:			
Title/Position:			
Date:			

Mail to: Permit Administration & Development Section
Office Of Air Management
100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

Company Name Mailing Address City, Indiana Zip Code

# **Affidavit of Construction**

(Name	of the Authorized Representative)	duly sworn upon my oath, depose and say:
1.	I live in	County, Indiana and being of sound mind and over twenty-one
	(21) years of age, I am competent to giv	
2.	I hold the position of	for (Company Name)
3.	By virtue of my position with	,I have personal (Company Name)
	knowledge of the representations contai	ned in this affidavit and am authorized to make
	these representations on behalf of	(Company Name)
4.	operation/facility) in conformity with the r	(complete source location), Indiana, (zip code), has constructed the (? requirements and intent of the construction permit application received ate) and as permitted pursuant to <b>Source Modification No. 000–0000</b>
5.		onstructed/substituted as described in the attachment to this ance with the construction permit. (Delete this statement if it
Further Affiant sa	aid not.	
I affirm under pe belief.	nalties of perjury that the representations	s contained in this affidavit are true, to the best of my information and
		Signature
STATE OF IND	JIANA) )SS	Date
COUNTY OF _	)	
Subso	cribed and sworn to me, a notary public ir	n and for County and State of
Indiana on this	day of	, 20
My Commission	n expires:	_
		Signature
		Name (typed or printed)
		Name (typed of printed)

# Indiana Department of Environmental Management Office of Air Quality

# Technical Support Document (TSD) for a Part 70 Minor Source Modification.

# **Source Background and Description**

Source Name: Ispat Inland Inc.

Source Location: 3210 Watling Street, East Chicago, Indiana 46312

County: Lake SIC Code: 3312

Operation Permit No.: T089-6577-00316
Operation Permit Issuance Date: Not yet issued
Minor Source Modification No.: 089-12796-00316
Permit Reviewer: Teresa Freeman

The Office of Air Management (OAM) has reviewed an application from Ispat Inland Inc., relating to the construction and operation of the following equipment for a Direct Reduced Iron( DRI) storage and conveying system:

- (a) An enclosed truck/trailer unloading Area (213) with a potential throughput of 400,000 tons per year of DRI
- (b) A DRI conveyor system consisting of:
  - (1) A 20,000 cu. ft. capacity enclosed DRI storage silo with excess air vented through the roof and then through one of the bin vents
  - (2) A horizontal trough belt stocking conveyor
  - (3) Multiple Delivery Conveyors
- (c) Emission control system for (a) and (b) to remove particulate matter consisting of:
  - (1) Bin Vent Filter No. 1 (210)
  - (2) Bin Vent Filter No. 2 (211)
  - (3) Bin Vent Filter No. 3 (212)

DRI is transferred from one of the delivery conveyors into the enclosed storage silo. All conveyors are enclosed and dust is dumped back onto conveyor. Ispat Inland Inc. (Ispat) is proposing to simplify and better control its use of Cold Direct Reduced Iron (DRI) by installing and operating a new DRI storage and conveying system to receive, stock, store, transfer and deliver cold DRI at Ispat's No. 1 Electric Arc Furnace Shop.

#### **Enforcement Issue**

There are no enforcement actions pending.

# **Stack Summary**

ID	Operation	Total Filter Area (Cu. Ft.)	Flow Rate (acfm)	Temperature (°F)
210	No. 1 Bin Vent Filter	480	1500	ambient
211	No. 2 Bin Vent Filter	480	1500	ambient
212	No. 3 Bin Vent Filter	480	1500	ambient

# Recommendation

The staff recommends to the Commissioner that the Part 70 Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on October 5, 2000 and additional information received on January 24, 2001.

# **Emission Calculations**

See Appendix A (Emissions Calculation Spreadsheets) for detailed calculations (1 page).

# **Potential To Emit of Modification**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)			
PM	8.68			
PM-10	5.84			
SO <sub>2</sub>	not applicable			
VOC	not applicable			
СО	not applicable			
NO <sub>x</sub>	not applicable			

# **Justification for Modification**

The Part 70 Operating permit is being modified through a Part 70 Minor Source Modification. The potential to emit of each regulated pollutant due to the modification is less than 25 tons per year for PM and less than 15 tons per year for PM10. This modification is being performed pursuant to 326 IAC 2-7-10.5(d)(5) (Part 70 Permits; Source Modifications).

# **County Attainment Status**

The source is located in Lake County.

Pollutant	Status		
PM-10	Moderate nonattainment		
SO <sub>2</sub>	Marginal Nonattainment		
$NO_2$	Attainment or unclassifiable		
Ozone	Severe Nonattainment		
CO	Attainment or Unclassifiable		
Lead	Attainment or unclassifiable		

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Lake County has been designated as nonattainment for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (b) Lake County has been classified as nonattainment for PM10 and SO2. Therefore, these emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (c) Fugitive Emissions
  Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

# **Source Status**

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)			
PM	1,156			
PM-10	1,156			
SO <sub>2</sub>	4,772			
VOC	1,621			
СО	47,368			
NOx	7,050			

- (a) This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of 100 tons per year or more, and it is one of the 28 listed source categories.
- (b) These emissions are based upon 1999 emission statements.

# Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

Stack/Vent/Fugitive ID	Basis	Unit		Future	Potential	
	PM	PM10	Units	PM	PM10	Units
210	0.03	0.03	gr/dscf	1.69	1.69	ton/year
211	0.03	0.03	gr/dscf	1.69	1.69	ton/year
212	0.03	0.03	gr/dscf	1.69	1.69	ton/year
213	0.0024	0.0011	lb/ton	0.24	0.11	ton/year
DRI Road Traffic (50P)	0.35	0.66	lb/VMT	3.37	0.66	ton/year
Scrap road traffic (53P)	1.33	0.32	lb/VMT			ton/year
Scrap road traffic (80U)	9.61	2.33	lb/VMT			ton/year
Net Emission Increase			8.68	5.84	ton/year	
Significant levels				25	15	ton/year

- (a) This modification to an existing major stationary source is not major because the emissions increase of PM and PM10 is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.
- (b) This modification to an existing major stationary source is not major because the emissions increase of PM and PM<sub>10</sub> is less than the Emission Offset significant levels. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

# **Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this proposed modification.

# State Rule Applicability

# 326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

# 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations)

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations), the particulate matter emissions from the No. 1 Bin Vent Filter shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations), the particulate matter emissions from the No. 2 Bin Vent Filter shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations), the particulate matter emissions from the No. 3 Bin Vent Filter shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

# 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements)

Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from the new emission unit stacks and fugitive sources shall not exceed the following limitations:

- (a) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%).
- (b) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%).
- (c) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%).
- (d) The opacity of fugitive particulate emissions from continuous transfer of material onto and out of storage piles shall not exceed ten percent (10%) on a three (3) minute average.
- (e) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average.
- (f) There shall be a zero percent (0%) frequency of visible emission observations of a material during the in plant transportation of material by truck or rail at any time.
- (g) The opacity of fugitive particulate emissions from the inplant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%).
- (h) There shall be a zero percent (0%) frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building.
- (i) The PM<sub>10</sub> emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.
- (j) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).
- (k) Any facility or operation not specified in 326 IAC 6-1-11.1(d) shall meet a twenty percent (20%), three (3) minute opacity standard.
- (I) PM<sub>10</sub> emissions from each material processing stack shall not exceed 0.022 grains per dry standard cubic foot and ten percent (10%) opacity.
- (m) Fugitive particulate matter from the material processing facilities shall not exceed ten percent (10%) opacity.

Material processing facilities include crushers, screens, grinders, mixers, dryers, belt conveyors, bucket elevators, bagging operations, storage bins, and truck or railroad car loading stations.

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Permittee's Continuous Compliance Plan (CCP). The CCP shall be updated to include all new equipment and control strategies within the date of initial start-up.

# 326 IAC 6-1-11.2 (Lake County Particulate Matter Contingency Measures)

The source is subject to 326 IAC 6-1-11.2 because it is subject to the requirements of 326 IAC 6-1-11.1 and 326 IAC 6-1-10.1(d). Pursuant to this rule, the source shall comply with parts (h), (i), (k), (l), (m), (o), (p) and (q) of this rule.

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326 IAC 6-4 (Fugitive Dust Emissions)

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

# **Compliance Requirements**

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

# Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No. 089-12796-00000.